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ABSTRACT

The Education Graduates' Post-Degree Learning Needs Study, conducted in fall 1996 and winter 1997, examined the post-degree learning needs of faculty/college of education graduates. Research activities included a literature review, a written survey of education graduates, research in two university graduate classes, telephone interviews with education graduates, review of calendars from educational institutions, and interviews with individuals knowledgeable about distance education in Saskatchewan. Thirteen major findings include: (1) education graduates participate in learning activities for many reasons, with becoming more skilled at one's job, and personal growth and satisfaction topping the list; (2) education graduates participate in informal learning activities more frequently than they do in formal structured classes; (3) many individuals participate in learning activities for more than one reason (career and personal motivations are often interwoven); (4) for some individuals, learning is a major theme permeating all life choices; (5) lack of time is a major obstacle to participation in formal structured learning activities for most education graduates; and (6) time off with pay would be the most significant incentive that employers could offer to encourage post-degree learning. Four appendixes contain the survey; a coupon that appeared in the Saskatchewan Teachers' Federation Bulletin; data collection in graduate research classes at the universities; and the telephone interview script. (Contains approximately 105 references.) (SM)

SP

SASKATCHEWAN INSTRUCTIONAL DEVELOPMENT & RESEARCH UNIT

ED 434 081

EDUCATION GRADUATES' POST-DEGREE LEARNING NEEDS STUDY

Principal Researcher:
Loraine Thompson, M.Ed.

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SIDRU Research Report No. 18
May 1997

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Faculty of Education, University of Regina, Regina, SK S4S 0A2

Education Graduates' Post-Degree Learning Needs Study

Prepared for

Saskatchewan Instructional Development and Research Unit
Faculty of Education, University of Regina

by

Loraine Thompson Information Services Limited

With funding from
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EXECUTIVE SUMMARY

The Education Graduates' Post-Degree Learning Needs Study, conducted in fall 1996 and early winter 1997, examined the post-degree learning needs of faculty/college of education graduates. In the study, the term "learning" was interpreted very broadly and included informal learning activities such as reading, credit and non-credit courses, short courses and inservice activities, as well as formal graduate and undergraduate study. Learning for both personal and professional purposes was considered. Education graduates were considered to be people who have a Bachelor of Education degree, regardless of whether or not they are working as teachers.

The research activities undertaken as part of this study included a literature review, a written survey of education graduates, research in two graduate university classes, telephone interviews with education graduates, review of calendars from educational institutions, and information interviews with individuals who are knowledgeable about distance education in Saskatchewan.

Major findings of the study and their implications were as follows:

Major Findings	Implications
1. Education graduates participate in learning activities for many different reasons, with becoming more skilled at one's present job, and personal growth and satisfaction topping the list.	▸ No single program, or category of programs, can meet the ongoing learning needs of all education graduates. Because graduates participate in learning activities for many different reasons, a variety of programs and types of programs are needed.
2. Education graduates participate in informal learning activities such as reading and watching TV and videos more frequently than they do in formal structured classes.	▸ Anything that school divisions and professional organizations can do to facilitate informal learning would be useful. This might include facilitating access to professional literature and videos, and encouraging teacher study and discussion groups.
3. Many individuals participate in a learning activity for more than one reason – career and personal motivations are often interwoven.	▸ Learning activities that respond to more than one need are likely to be more popular than those that are very narrowly focussed. For example, a university course that helps a teacher become more skilled at her job is likely to be more popular than one that only contributes to getting a credential.

Major Findings	Implications
4. For some individuals, learning is a major theme that permeates all of their life choices.	▸ Structuring jobs (including teaching jobs) so that voluntary opportunities for new experiences and change are built in, will partially meet the learning needs of some individuals.
5. Academic university courses are an important means of learning for most education graduates, but they are not the only means. The importance of various means of learning varies with the individual.	▸ A range of different learning activities and categories of activities is needed.
6. Education graduates say that the types of learning that are most important to them for the next five years in terms of their personal and career plans are reading, discussion or study groups with others, independent learning on the computer, and graduate courses in education.	▸ Books, journals and videos are traditional means of informal learning for many education graduates. The computer appears to be an increasingly popular means of informal learning. While the Internet should not be used to the exclusion of traditional means, putting information on the Internet would be another way of supporting informal learning.
7. Lack of time is a major obstacle to participation in formal structured learning activities for most education graduates.	▸ Reducing or easing the workload of teachers who are taking university classes would make it easier for them to participate in formal studies. ▸ Scheduling university classes in a variety of ways, other than the traditional one evening per week format, would make them more accessible to people with busy schedules.
8. Time off with pay would be the most significant incentive that employers could offer to encourage post-degree learning.	▸ Offering full- or part-time paid leave would be an important way that school divisions could encourage teachers to continue formal learning.

Major Findings	Implications
9. Most education graduates prefer face-to-face instruction where there is interaction with others for the delivery of educational programs.	▸ Regardless of how educational courses are delivered, those that build in opportunities for interaction with others are likely to be the most meaningful, popular and successful.
10. Although distance education would not be the first choice of most, they recognize it as a realistic alternative for making learning more accessible.	▸ Distance education has the potential to reach more students and to make specialized programs available. However, it should not be the only means of delivering programs.
11. The percentage of survey respondents that have access to various technologies is as follows: • Internet work station – 63.4% • multiple television channels through either cable TV or satellite dish – 67.1% • an SCN receiving site – 39.6% • VCR – 93.9% • speaker phone – 30.5% • frequent and reliable postal service – 91.5% • other – 7.9%	▸ SCN could do more to publicize the location of its receiving sites. ▸ Educational institutions should not rely on SCN exclusively to deliver distance education programs. ▸ No single type of technology can reach all potential students in Saskatchewan.
12. Greater flexibility and more alternatives in terms of course scheduling would make face-to-face university courses more accessible and convenient.	▸ Saskatchewan's two universities could offer courses in formats other than the traditional one evening per week format. Weekend courses and modular courses are possibilities.
13. More flexibility in terms of administrative rules and courses accepted for credit would make university graduate study easier for some people.	▸ Saskatchewan's two universities could examine their program requirements, administrative rules, and regulations concerning courses from other institutions that are accepted for credit with a view to bringing them into line with the highly flexible programs offered by some American universities.

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INTRODUCTION

The Education Graduates' Post-Degree Learning Needs Study examined the post-degree learning needs of faculty/college of education graduates. The study had four purposes:

- to identify the reasons why education graduates seek post-degree learning;
- to identify the types of programs currently available to meet those learning needs;
- to identify the learning needs that are currently unmet and the types of new programs that might be required to meet these needs; and,
- to identify the types of technology that exist and the types of technology needed for delivery of educational programs to education graduates.

In this study, post-degree learning needs were interpreted very broadly and included informal learning activities such as reading and watching videos, credit and non-credit activities, short courses, inservice activities, as well as formal graduate and undergraduate study.

RATIONALE FOR THE STUDY

The Education Graduates' Post-Degree Learning Needs Study was undertaken for several reasons.

- **The role of teachers is changing.** New curricula mean ongoing academic learning for teachers. The development of holistic approaches to education such as integrated school-linked services (*Working Together to Address Barriers to Learning*, 1994) mean that many teachers will soon be working within completely new frameworks. Post-degree learning can help teachers develop the skills they need to stay abreast of their changing roles (Amyotte, 1995; Bradshaw & Buckner, 1994; Solomon, 1993).

- **The job market is changing**. The number of teachers in Saskatchewan has decreased in recent years (*Saskatchewan Education Indicators*, 1996) and the demand for teachers is expected to decline even more in the years ahead (Horsman, 1992; *Saskatchewan Labour Market Outlook*, 1992). As a result, some practicing teachers will be seeking post-degree learning in order to apply their teaching skills in other areas of education or to enter a completely new field. The job market for teachers has been particularly tight in the cities for some time. Graduates who, because of family responsibilities, cannot leave the city and thus cannot get a job, may seek additional learning soon after graduation in order to prepare themselves for work in a different field.

- **The concept of post-degree learning is changing.** Formal graduate study and short inservice sessions are traditional forms of post-degree learning for education graduates. Today, many other types of post-degree learning are being implemented on either a regular or a pilot basis. These include mentoring programs (Ehrich, 1994; Gordon & Moles, 1994; Warner, 1994), visiting clinical professors (Beckham, 1994), reading professional literature and visiting innovative educational programs in other schools (Manning & Manning, 1994).

- **Learning is a life-long process.** Education is no longer seen as something that is finished when a young person leaves high school or university. Today education is a lifelong process. Indeed, being a lifelong learner is one of the characteristics of an educated person as described by Saskatchewan's Goals of Education (Curriculum and Instruction Review, 1984). Lifelong learning has been described in this way:

  > *Lifelong learning is not restricted to the kinds of learning which take place in schools, nor does it lead only to the acquisition of school-like information. It is a comprehensive phenomenon including traditional school learning and vocational learning, but going beyond learning as it is traditionally understood in formal education systems, and including learning leading to self-development or self-actualization.* (Cropley, 1980, p. 2)

- **New methods are being used to deliver programs.** Face-to-face classroom interaction is the traditional way of delivering post-degree learning, (and most other types of learning, for that matter). Recent technological developments mean that it is no longer the only way.

Television, interactive and regular video, conference calls, computer conferencing, and other technologies now can bring instructors and learners together even when they are separated by geographic distance (Garrison, 1989; Knapczk, 1993). In Saskatchewan, the main purpose of the Saskatchewan Communications Network is to deliver educational programming through electronic means. Several schools, colleges and universities have television production studios that are capable of producing specialty programming.

Traditional classroom instruction is sometimes now delivered in non-traditional ways. For example, a graduate course may be delivered on six weekends over a six-month period instead of the traditional three or four hours, one evening per week. Or graduate students may be able to complete a program by attending university for several summers, rather than by taking evening classes.

SCOPE OF THE STUDY

WHO IS AN EDUCATION GRADUATE?

An education degree equips an individual to be a teacher in either the K-12 system or a teacher of adults in a technical institute or regional college. However, not all education graduates work full-time as teachers. Some cannot get full-time work. Some choose to go into other types of work, and a few become homemakers.

Recent studies at the University of Regina and University of Saskatchewan provide information about new education graduates' employment situations.

- By fall of 1995, 77.5 percent of 1994 graduates from the University of Regina, Faculty of Education were teaching – 30 percent had permanent contracts, 37.5 percent had various types of temporary contracts and 20.5 percent were substitute teaching. A further 7 percent were employed in education but were not teaching (Mitchell, 1995).

- By January of 1995, 80 percent of 1993 and 1994 graduates from the College of Education, University of Saskatchewan were working in the field of education in some capacity:

  - 57 percent were teaching in a K-12 or adult education classroom
  - 6 percent were teaching in a K-12 classroom outside the public school system
  - 17 percent were employed in a teaching-related position (*Employment of Beginning Teachers in Saskatchewan*, 1995).

- By spring 1996, 86.6 percent of 1995 graduates from the University of Regina, Faculty of Education were working as teachers or in a teaching-related field:

  - 76.4 percent were teaching in a K-12 school
  - 3.2 percent were teaching outside a K-12 school
  - 7.0 percent were teaching in related positions (Mitchell, 1996).

- Eighty-two percent of the individuals who graduated at the May and October 1995 convocations of the University of Regina and University of Saskatchewan were working as teachers:

  - 54 percent were teaching full-time (34.3 percent on permanent contracts, 19.2 percent on temporary contracts)
  - 28.4 percent were on part-time contracts or substitute teaching (*Employment of Beginning Teachers in Saskatchewan*, 1995).

The written survey conducted as part of the Education Graduates' Post-Degree Learning Needs Study provides information about the employment situation of people who graduated from education programs over the past 20 years. Distributed to a random sample of University of Regina and University of Saskatchewan education graduates, this survey showed that 60.4 percent of graduates were teaching full-time and 13.4 percent were teaching part-time (Table 1).

Table 1

Employment Status of Respondents to the Education Graduates' Post-Degree Learning Needs Survey

Employment Status		%
Teaching full-time	–	60.4
Teaching part-time	–	13.4
Working in an education-related field but not teaching	–	4.3
Working in a field unrelated to education	–	2.4
Student	–	0
Homemaker	–	1.8
Unemployed	–	.6
Retired or semiretired	–	6.1
Other	–	4.9
No response	–	6.1

It cannot be assumed that an education graduate is also always a teacher. Although the types of learning discussed in this study are typical of teachers, it is probable that at least some will be pursued by non-teaching education graduates as well.

WHAT IS POST-DEGREE LEARNING?

In this study, a very broad interpretation of the term *learning* was used. Learning for both personal and professional purposes was considered. A range of different learning formats ranging from formal classes to individual learning through reading was addressed.

This broad view of learning is important because statistics regarding participation in formal courses sponsored by schools, colleges and universities in no way account for the total sum of purposeful adult learning which occurs in a multiplicity of settings. "Indeed, it will often be the case that most significant kinds of adult learning that are identified as such by adult learners themselves occur in settings not formally designated as adult education ones. Such settings include families, community action groups, voluntary societies, support networks, work groups and interpersonal relationships" (Brookfield, 1986, pp. 4-5).

MANAGEMENT OF THE STUDY

The Faculty of Education, University of Regina, and the Saskatchewan Instructional Development and Research Unit (SIDRU), at the University of Regina, took a leadership role in identifying the need for a study exploring the ongoing learning needs of education graduates, in setting up the organizational structures to make it possible, and in securing funding.

An advisory committee made up of representatives of the two lead organizations and of other educational organizations such as the Saskatchewan Teachers' Federation; the College of Education, University of Saskatchewan; University Extension, University of Regina; and Extension Division, University of Saskatchewan provided direction for the study.

The initial proposal for the study was submitted to the University of Regina Ethics Committee for approval since three of the research activities involved human subjects. Ethics approval was received in due course.

STUDY METHODOLOGY

RESEARCH ACTIVITIES

The six research activities undertaken as part of the study were:

1. **A review of the literature.** The literature review includes documents from the following areas:

   - adult education
   - teacher inservice
   - lifelong learning
   - delivery of educational programs
   - educational technology
   - distance education.

   The results of the literature review are integrated throughout this report.

2. **A written survey of education graduates.** The actual survey form used is attached to this report as Appendix A. The individuals who received this survey were selected in the following ways.

   - The Saskatchewan Teachers' Federation provided a random sample of 200 members.

   - The University of Regina (in a cooperative effort between the Faculty of Education and the Alumni Association) provided a random sample of 100 graduates of the University of Regina, Bachelor of Education program.

   - The Development and Alumni Affairs Office of the University of Saskatchewan provided a random sample of 100 graduates of the University of Saskatchewan, Bachelor of Education program.

   - A coupon was placed in the *Saskatchewan Teachers' Federation Bulletin* asking for volunteers to complete a written survey or participate in a phone interview or focus group. This coupon is attached as Appendix B. Only eight of these coupons were returned. Six of the people who returned the coupon volunteered to complete the survey.

   A total of 406 survey questionnaires were mailed; 164 were returned for a response rate of 40.4 percent.

   Tables 1 to 8 present a profile of the individuals who responded to the survey. This profile may be summarized as follows:

   - 60.4 percent were teaching full-time and 13.4 percent part-time

- 63.4 percent were female
- The largest proportion (34.8%) of survey respondents were in the 46-55 age range
- The largest proportion of survey respondents came from the west central (20.7%) and southeast (20.7%) areas of Saskatchewan
- Slightly more than half of the respondents (58.5%) lived in cities
- 63.4 percent had children at home
- 80.5 percent were satisfied with their employment
- 43.3 percent said that their employment situation was better than it was five years ago and 37.2 percent said that their employment situation was neither better nor worse than five years ago.

Table 2

Gender of Survey Respondents

Gender		**%**
Female	–	63.4
Male	–	36.0
No response	–	0.6

Table 3

Age of Survey Respondents

Age		**%**
Under 25	–	2.4
25-35	–	28.7
36-45	–	27.4
46-55	–	34.8
56-65	–	4.9
66 +	–	1.2
No response	–	0.6

Table 4

Area of the Province Where Survey Respondents Live

Area		%
North	–	11.0
East central	–	15.2
West central	–	20.7
Southeast	–	20.7
Southwest	–	11.6
No response	–	20.7

Table 5

Type of Community in Which Survey Respondents Live

Community		%
City	–	58.5
Town	–	17.7
Village	–	12.2
Acreage	–	4.9
Farm	–	4.3
No response	–	2.4

Table 6

Survey Respondents with Children at Home

Children		%
Children at home	–	63.4
No children at home	–	36.0
No response	–	0.6

A minority of survey respondents commented on their reasons for being satisfied or dissatisfied with their employment (Table 7). Comments by those who were satisfied included, "I have a good relationship with peers and students," "satisfaction from teaching young children," "in a good school with good colleagues." Dissatisfaction was centred on three areas – wanting a full-time job rather than a part-time job, a desire to move into adminstration, and teaching in a subject area or grade level other than one's area of training, expertise or preference.

Table 7

Survey Respondents' Level of Satisfaction with Their Employment

Level of Satisfaction		**%**
Satisfied	–	80.5
Not satisfied	–	11.6
Neutral	–	5.5
No response	–	2.4

Some survey respondents commented on the reasons why they viewed their employment status to be better or worse than five years ago (Table 8). Reasons given frequently for viewing employment as better now included working in an administrative job, working full-time rather than part-time or not at all, and a better teaching assignment now than five years ago.

Table 8

Survey Respondents' Employment Status Now Compared to Five Years Ago

Employment Status		**%**
Better	–	43.3
Worse	–	13.3
Unchanged	–	37.2
No Response	–	6.2

Reasons why employment is worse than five years ago included uncertainty due to budget restraints and declining enrollments and more responsibilities for dealing with children's behaviour.

3. **Research in two graduate university courses.** This project researcher taught interviewing skills for one class in the graduate research course at the University of Saskatchewan and one class in the qualitative graduate research course at the University of Regina. Appendix C provides an overview of the structure of this class. During the first half of the class, interviewing microskills were demonstrated and practiced. During the second half of the class students prepared a brief outline for a semistructured interview on the topic of ongoing learning needs and interviewed each other. A total of 27 interviews were collected in these two classes. Twenty of the interview subjects were female and seven were male.

4. **Telephone interviews.** All eight of the people who returned the coupon that appeared in the *STF Bulletin* volunteered to participate in telephone interviews. Seven of these people were interviewed (one did not return phone calls). One additional interview was done with a person working in an education-related field who heard of the study and volunteered for an interview. The script that was used for these interviews appears in Appendix D. Seven of the telephone interview subjects were female, and one was male.

   The results of the classroom and the telephone interviews are discussed together throughout this report.

5. **Review of calendars, brochures and similar materials** produced by adult education institutions in Saskatchewan and agencies that deliver distance education.

6. **Several telephone and personal information interviews** with individuals who are knowledgeable about adult education distance education activities in Saskatchewan or are actively involved in delivering adult education programs through distance education.

STUDY LIMITATIONS

Limitations of the Education Graduates' Post-Degree Learning Needs Study include:

- Survey results are based on those individuals who voluntarily returned the written surveys which is not a truly random sample of all education graduates.

- Women were predominant both among those who returned the surveys and those who participated in interviews.

- The graduate students who interviewed each other as part of data collection were all enrolled in a formal university course and thus may have tended to view learning from a more academic perspective than would a random sample of education graduates.

- Two of the individuals who participated in the classroom interviews did not have Bachelor of Education degrees. Their undergraduate degrees were in other academic areas.

- The information that appears in the sections of this report titled *Post-Degree Learning Opportunities for Education Graduates in Saskatchewan* and *Delivery of Post-Degree Learning* is representative of the current situation only. It is not intended to be comprehensive because post-secondary, post-degree and adult education programs in Saskatchewan change as budgets and institutional priorities change. Similarly, distance education programs change as budget and priorities change, and as technology improves or becomes less costly.

  Previous surveys of both adult and K-12 activities in Saskatchewan and in Canada have become out-of-date very quickly (*New Trends in Delivering Elementary and Secondary Education to Small Rural Schools*, 1988; *Report on Western Canadian Distance Learning in Post-Secondary Education*, 1993; *A World without Boundaries*, 1987). Thus, individuals who require current information on distance education are best advised to contact educational institutions directly.

EDUCATION GRADUATES' REASONS FOR PARTICIPATING IN LEARNING ACTIVITIES

FROM THE LITERATURE

Numerous theoretical papers (Apps, 1992; Cross, 1981; Howey & Joyce, 1979) and research studies (Clark & Anderson, 1992; *From the Adults' Point of View*, 1982; Kopka & Peng, 1993; Morstain & Smart, 1974) report upon adults' reasons for participating in ongoing learning activities.

These reasons are well summarized by Clark and Anderson (1992) in a study conducted at McGill University. Although their list of reasons why adults participate in ongoing education was developed with university education in mind, other studies suggest that it applies to all types of adult learning. Clark and Anderson say that adults participate in learning activities for:

- **career development** such as preparing for a career change or increasing opportunities for promotion
- **gaining knowledge** such as increasing knowledge and understanding of an academic field and improving competency
- **fulfilling external requirements** such as getting a qualification recognized by a professional association
- **personal development** such as increasing self-confidence, leadership skills or communication skills
- **personal fulfillment** such as a feeling of accomplishment or self-satisfaction
- **networking** such as meeting people who might contribute to career advancement or people with similar interests.

Apps (1992) suggest that although adults pursue learning for a variety of reasons, these reasons often relate to a search for meaning in one's life. He says:

> *Many adults, deep down, are searching for meaning in their lives. Even if, on the surface, the majority appears to be learning for instrumental reasons (job, personal skill, language), many actually are searching for meaning. Through learning, they are often able to catch glimpses of who they are and where they have been, where they are now, and where they are headed. This search for meaning generally involves a conversation with self, a conversation with others, an interaction with some content, and an interaction with the environment around them* (p. 9).

Adults' reasons for participating in learning activities and the types of activities they choose change as individuals' age and as their life and career circumstances change. Three factors which may influence participation in learning are age, gender and career satisfaction.

- **Age.** An American study (Kopka & Peng, 1993) found that younger adults were more likely than older adults to participate in adult education to get a diploma or degree, to train for a new job or career, or to improve basic skills. This same study found no clear differences among age groups in terms of participating in adult learning to enhance personal, family or social life.

- **Gender.** A Study conducted at the Ontario Institute for Studies in Education (Miller, Taylor & Walker, 1983) found that as male and female teachers progress through their careers, they perceive themselves and their careers differently, and that they develop different career aspiration patterns. After a certain age and career stage, male teachers typically abandon their aspirations for promotion to administrative positions, while female teachers experience an awakening in their administrative aspirations. Thus, we might expect to see female teachers' interest in master's and doctoral degrees in educational administration increase in mid-career and male teachers' interest decline.

- **Career satisfaction.** Some teachers are not finding fulfilment in their careers – they feel that they are not making a contribution or that their contribution is not being recognized. Consequently, they begin to pursue other interests outside school where they do find either personal self-fulfilment, or recognition for their achievements, or both (Ryan, 1995). Teachers who are not fulfilled in their careers might be expected to focus their learning activities on personal interests rather than on programs relating to their careers.

Much of what has been written about adult learners talks about the self-directed nature of adult learning (Hiemstra, 1985; Mocker & Spear, 1982). But in the case of teachers, this is only sometimes the case. Teachers (along with many other occupational groups) sometimes pursue learning because it will help them realize either career or personal goals, but they also participate in learning activities such as inservice education, because they are required to do so by their employers.

A vice-principal who does a master's degree because she sees it as a route to a principalship is learning voluntarily. So is the person who studies music because she loves it. A teacher who attends an inservice workshop during a teachers' convention is doing it because it is a condition of employment. The line between voluntary and required participation in learning activities isn't always clear. For example, a teacher might voluntarily take classes that lead to accreditation, but be under considerable pressure from her principal to do so.

New education graduates' and, in particular, teachers' motives for further learning are made more complex by the nature of the teaching profession. Wittrock (1986) points out that the ways in which teachers' work is defined and experienced affects teachers' motivation to continue learning to teach more effectively, and to contribute to their field. In contrast to certain other occupations in which there are clearly identifiable career stages, elementary and secondary school teaching

is relatively "careerless". Little distinction is made between newcomers and others. "The implicit assumption is that neither the daily work of teaching nor the structure of career opportunities requires extended training and support" (Wittrock, 1986, p. 501).

SURVEY FINDINGS

Participants in the written survey conducted as part of the Education Graduates' Post-Degree Learning Needs Study were given a list of reasons for participating in ongoing learning and were asked to rank the importance of each reason on a five-point scale. As displayed in Table 9, the two reasons which were rated highest were "to become more skilled at my present job" and "for personal growth and interest". The third most important reason was "to become more skilled in a hobby or sport".

Table 9

Importance of Various Reasons for Participating in Ongoing Learning Activities – Survey Respondents

	Not important				Very important
Reasons	%				
	1	2	3	4	5
To become more skilled at my present job	1.2	0.0	4.3	26.8	64.6
To get a better job in the same area of work	25.6	14.6	17.1	17.7	18.9
To prepare for a career change	27.4	17.1	19.5	17.1	13.4
To make myself more marketable	15.9	15.2	20.1	20.7	22.0
To get a degree, certificate or other credential	30.5	12.2	18.3	17.7	14.0
Because my employer requires it	25.6	22.0	26.8	13.4	4.3
For personal growth and interest	0.0	1.8	6.7	35.4	53.0
To become more skilled in a hobby or sport	11.6	8.5	20.7	26.2	28.0
Other (please specify)	2.4	0.0	3.7	0.0	3.0

INTERVIEW FINDINGS

Most of the interview subjects commented on their reasons for participating in various post-degree learning activities. The most common reason for pursuing graduate work was the desire for career advancement such as moving into a principal's or vice-principal's job or working for Saskatchewan Education. A few said that a master's degree was a way of keeping as many doors

as possible open. Several made comments like, "Well, I always wanted to have a master's degree," which implied that the degree is a goal in and of itself, independent of any utilitarian value it might have.

Several of the interview subjects talked about the importance of learning in their lives. Learning for them is a force that nourishes and sustains them, satisfies their curiosity about the world and provides a sense of accomplishment. Individuals who expressed this point of view had different perceptions of what learning is. For example, one person who talked about the major role that learning plays viewed learning primarily in terms of formal academic programs. Another person viewed virtually every life experience as an opportunity for learning and consciously organized her life so that she would have new experiences and thus new opportunities for learning.

TYPES OF POST-DEGREE LEARNING

FROM THE LITERATURE

Four types of post-degree learning are discussed in this section. They are:

- university education
- teachers learning from teachers
- individual learning
- staff development.

The four types of learning selected for examination through the review of the literature for this study are those which are most typically oriented toward teachers. There are many other types of learning as well including regional college and technical institute courses, courses organized by cultural and sports groups, and personal growth activities such as counselling and meditation.

University Education

Education graduates often seek additional formal credentials through university education. Their reasons include a desire to advance to an administrative position, to move up the salary schedule or to prepare for a career change. Interestingly, the literature on adult learning in general and teacher learning in particular includes very few books and articles on formal university study. Those items which have been published tend to be discussions or debates about the types of academic credentials that teachers should have. For example, in a highly controversial report, a Task Force established to review the University of Regina's academic program recommended that a degree in either Arts or Science be a prerequisite to admission to any degree program in the Faculty of Education (*From Reflection to Renewal*, 1988). Currently, there is considerable discussion in the U.S. about the feasibility of requiring a master's degree of all teachers (Knapp, et al., 1990; Turner, 1990).

Teachers Learning from Teachers

> *Teaching is rooted in a tradition of isolation. From the original one-room schoolhouse to current structures; described by researchers as "one-room schoolhouses repeated every few yards down the corridor" (Glickman, 1990), the physical characteristics of schools impose barriers to communication about successful instructional and curricular practices.* (Robbins, 1991, p. 10)

At the same time, it is recognized that practicing teachers have a wealth of practical knowledge (Ash, 1993) and that much of "teachers' knowledge and understanding of teaching, of their students, and of the micropolitics of their educational enterprise arises through exchanges with other teachers" (Feldman, 1994, p. 2).

In recent years, processes have been developed which break down isolation and allow teachers to learn from each other. Two of these processes – mentoring and peer coaching – are discussed in the sections that follow. A third section *Teacher Groups* describes a variety of formal and informal group arrangements that facilitate teachers learning from each other.

Mentoring

"Mentoring involves a senior person (the mentor) undertaking to support and guide a less experienced colleague's (the protégé) personal, professional, and career development" (Walker & Stott, 1994, p. 24). Mentoring is typically used as a way of supporting beginning teachers (DiGeronimo, 1993; Ganser, 1994; Huling-Austin, 1992; Mateja, 1992; Smaby, Peterson, Hovland & D'Andrea, 1994) or principals (Walker & Stott, 1994, Wilmore, 1995) during their first year of work. Less frequently, it is a way of facilitating learning among experienced teachers (Loyd & Redick, 1991; Smolin, 1991).

Mentoring is usually seen as a program established for the benefit of protégés. Yet the literature suggests that mentors achieve a significant amount of learning and personal growth as the result of such programs as well (Ganser, 1994; Weeks, 1992; Wilmore, 1995; Wood, 1994).

For example, in one American mentorship program for intern principals, mentor principals grew in three ways:

- by participating in seminars provided by university professors, educators and scholars from other fields for intern and mentor principals
- through opportunity for cooperative learning with the intern
- through the experience of reflecting on their own administrative practice in order to explain and demonstrate to the intern.

> *The selection and training of mentors, the roles they assume and the kinds of activities in which they engage also vary considerably. In some cases, veteran teachers volunteer to serve as "buddy teachers" with little or no reduction in teaching responsibilities (DiGeronimo, 1993); in other cases, teachers are freed from their regular teaching assignment to serve as full-time mentors (Dollase, 1992; Ganser, Freiberg & Zbikowski, 1993).* (Ganser, 1994, p. 1)

Usually mentoring involves an ongoing relationship between mentor and protégé that spans weeks or months (DiGeronimo, 1993; Ganser, 1994; Huling-Austin, 1992; Mateja, 1992; Smaby, Peterson, Hovland & D'Andrea, 1994; Walker & Stott, 1994; Wilmore, 1995; Wood, 1994).

In a few cases (Loyd & Redick, 1991; Smolin, 1991), it is a single incident in which a more experienced teacher or one with specialized knowledge offers advice or structures a learning situation for a less experienced teacher.

Typically, the mentor is not an evaluator of the protégé. Protégés are less likely to be open with someone who passes judgement (Mateja, 1992). Nor is the mentor a supervising or cooperating teacher in whose classroom an intern teacher observes and student teaches. Protégés are usually fully qualified beginning teachers with their own classrooms.

In most mentorship programs for beginning teachers, the mentor and protégé meet at regular intervals. The mentor offers:

- emotional support (Ganser, 1994)
- information about overt matters such as formal school policies (Ganser, 1994)
- information about covert matters such as the school culture (Ganser, 1994)
- general assistance with teaching skills and classroom management (Ganser, 1994, Mateja, 1992)
- advice about curriculum and subject matter (Huling-Austin, 1992).

Although mentorship programs also sometimes provide opportunities for mentor and protégé to observe each other's teaching, this tends to be less important than other types of support (Ganser, 1994; Huling-Austin, 1992).

Matching a first-year teacher with an appropriate mentor is an important part of the mentoring process. The mentor should be:

- teaching at the same grade level or in the same subject area as the protégé (Huling-Austin, 1992; Mateja, 1992)
- someone who is experienced in her or his field and respected by other colleagues (Mateja, 1992)
- knowledgeable in the process of consultation/collaboration with good listening and interpersonal skills (Mateja, 1992)
- willing to work with the protégé and open to the mentoring process (Mateja, 1992).

The research consistently suggests that mentor teachers can benefit from preparation and training (Bey & Holmes, 1990; Brooks, 1987; Ganser, 1994; Huling-Austin, 1992; Smaby, Peterson, Hovland & D'Andrea, 1994; Weeks, 1992). However, this important element is sometimes omitted, particularly when resources are limited (Ganser, 1994). Mentors need training relating to:

- the purposes of teacher induction and mentorship programs (Huling-Austin, 1992; Smaby, Peterson, Hovland & D'Andrea, 1994)

- interpersonal skills such as listening, questioning and conferencing skills (Huling-Austin, 1992; Smaby, Peterson, Hovland & D'Andrea, 1994)

- clinical supervision and classroom observation skills (Huling-Austin, 1992)

- fostering self-esteem, self-reliance and decision-making ability in the protégé (Huling-Austin, 1992; Smaby, Peterson, Hovland & D'Andrea, 1994)

- school division philosophy, policies and procedures (Huling-Austin, 1992).

Peer Coaching

"Peer coaching is a confidential process through which two or more professional colleagues work together to reflect on current practices; expand, refine and build new skills; share ideas; teach one another; conduct classroom research; or resolve problems in the workplace" (Robbins, 1991, p. 1). There is considerable variation in the way that peer coaching programs are actually implemented in schools. They can be situations in which:

- colleagues work together as equals, first talking about new skills, role playing the skills with each other, observing each other's teaching and offering feedback (Joyce & Showers, 1982)

- one teacher is clearly designated as the coach and the other as the person receiving support. Support usually takes the form of observing in the classroom and offering feedback (Robbins, 1991). Sometimes the members of a peer coaching team take turns playing the roles of teacher and coach (Pavelich, 1992)

- experienced teachers conduct workshop sessions for less experienced teachers on the development of particular skills (Gilman, 1988).

Some programs include two or more of these elements (Busher, 1994). For example, peer coaching can follow a staff development workshop. Teachers work together to coach each other in the development of a skill first taught in the workshop (Garmston, 1987).

Usually in peer coaching, both participants are people who are established teachers. Occasionally, it is used as a way of supporting beginning teachers (Moffit, St. John & Isken, 1987) or within the context of an internship for student teachers (Pavelich, 1992). Two examples of the peer coaching process are:

Example 1

Preconference. The coach asks the teacher to explain the lesson's purpose, what led up to the lesson, what will follow and to provide relevant information about the students. The teacher explains the purpose of the lesson and specifies the focus of the observations. The coach's role is to help the teacher think about the lesson in order to create a dress rehearsal of the actual teaching performance. This role usually includes asking probing and clarifying questions.

Observation. The coach observes the teacher in the classroom and collects data on the areas of focus previously agreed to.

Postconference. Postconferences can be categorized as mirroring, collaborative and expert. In the mirroring conference, the coach simply hands the data collected to the teacher who analyzes it alone. In a collaborative conference, the conversation is usually characterized by a mutual discussion of the teacher observed. In an expert conference, the coach guides the teacher to analyze the lesson and provides advice to the teacher (Robbins, 1991).

Example 2

Study of the theoretical basis or rationale of the skill or teaching method to be practiced or learned.

Observation of people who are expert in the skill or teaching method.

Practice of the skill or teaching method in protected conditions, such as role playing with each other or teaching children who are relatively easy to teach.

Coaching one another as the peer coaching partners work the new skill or teaching method into their repertoire, providing companionship, helping each other learn appropriate responses to students, figuring out the best use of the skill or teaching method and providing each other with ideas and feedback (Joyce & Showers, 1982).

Skills associated with peer coaching such as questioning, observation, analyzing non-verbal communication, and giving non-evaluative feedback are not in all teachers' repertoires. Many successful peer coaching programs train coaches in such skills (Brandt, 1987; Busher, 1994).

The literature suggests that if peer coaching programs are to work effectively, two things are necessary:

- **An hospitable school environment** which includes a pre-existing climate of collegiality, school norms that support risk-taking and experimentation, and school values that prize working together and sharing (Robbins, 1991)

- **Supportive school leadership** which includes both principals and superintendents (Busher, 1994; Robbins, 1991). The principal is key (Brandt, 1987; Lieberman & Miller, 1981, Robbins, 1991). Principals who make peer coaching work unblock obstacles and eliminate the isolation that teachers often feel. They give a lot of attention to building the necessary shared understanding – to helping "the group not only to take responsibility for sharing in the problem solving, but also to understand what they're about and why they're about it" (Brandt, 1987, p. 10).

Teacher Groups

Mentoring and peer coaching are two relatively structured ways that teachers can learn from each other. School or school division administrators usually play a role in setting up those programs. There are also many less structured ways that teachers can learn from each other. Teacher groups are one of these ways. Teacher groups are established by teachers themselves and may meet evenings or weekends. Members have a shared interest or a shared learning objective and undertake various activities to promote learning.

Participation in a teacher group never leads to a degree or a certificate. It often doesn't even result in an entry on a resume. Teachers participate in groups as a means of developing themselves as educators and as people, not as a means to gaining external recognition.

Underhill (1992) has this to say about the role of groups in the development of teachers:

> *The kind of change we are concerned with in developing ourselves as teachers concerns people in the process of change and not only changes of organizational or curriculum procedures. Teacher development is no different from personal development and as such can only be self-initiated, self-directed, and self-evaluated. No one else can do it for us, though other people can be indispensable in helping us to do it.*
>
> *While this kind of personal or professional development can only be carried out by myself on behalf of myself, other people can play a very important, even decisive, role in helping me to mobilize my resources for change. My learners and my colleagues form two such groups, and within these groups there can be created a very definite kind of psychological climate that can support the growth of this kind of experiential enquiry.* (p. 79)

Examples of teacher groups include:

- **Study groups.** Typically these focus on an area or topic such as assessment, writing across the curriculum, or whole language (Sanacore, 1993). Activities undertaken by such groups may include reading articles and books, discussion and role playing.

- **Teacher book clubs** (Flood & Lapp, 1994; Sanacore, 1993). Usually participants in these clubs read contemporary fiction and may focus on a certain area such as multiculturalism. The objectives of book clubs include becoming better role models for students, personal

enrichment, enjoyment, and expanding individuals' knowledge of issues by identifying similarities in their own lives with the lives of characters in stories.

- **Narrative groups** (Ambrose, 1993; Bullough, 1989; Thompson, 1993). Teachers' stories or narratives are a valuable tool for understanding the complex nature of teaching. They are a way that teachers can express their personal and practical knowledge and can construct meaning from their experiences (Ambrose, 1993). In a narrative group, the participants usually write and read aloud their stories of teaching. The process of writing the narrative requires the teacher to reflect upon her own practice and experience. The process of sharing the narrative allows others to do the same.

Teacher groups vary considerably in their purpose, composition and activities. Sanacore (1993) lists a number of ingredients that will help make teacher study groups (and probably any type of teacher group) successful. These ingredients are:

- **Purpose.** Common interests and goals that bring people together to share important concerns that affect them and their students.

- **Logistics.** After establishing their purpose and agreeing to meet regularly, group members are usually concerned about when, where, and how often they will meet.

- **Resources.** The group may require resources such as books, articles or videotapes. It might also need equipment such as video cameras or tape recorders to record members in action. Sometimes, the group is concerned only with identifying valuable resources; other times with how to pay for them.

- **Transfer of learning.** Participants in teacher groups acquire new knowledge in a variety of ways. "Although knowledge does not guarantee better teaching, it does increase our potential for informed decision making. Thus, study group agendas should emphasize not only pertinent concerns of the members but also application to the classroom, considering both student outcomes and environments that support these outcomes" (Sanacore, 1993, p. 62).

- **Electronic networking.** The capacity to communicate with other researchers about issues can further inform and support a teachers' group.

- **Sustenance.** In order to sustain itself, the group needs to be structured so that members share responsibility for supporting the group. Support can include bringing new ideas to the group as well as looking after logistics.

- **Assessment.** Assessment of a group's success can include questions such as: Did we have enough opportunities to explore topics? Have we applied new ideas to the classroom? Have our attitudes improved? Have we learned more about our own practice?

Individual Learning

Most of the types of learning discussed previously involve two or more people working together. However, learning can also take place when a single individual works alone. Examples of individual learning include:

- **Reflective teaching** (Ash, 1993). Reflective teaching is a self-critical approach to teaching in which all aspects of a teacher's practice are open for reflective consideration. It involves a teacher asking herself questions such as: Why do I organize my classroom the way I do? What is the role of my students in classroom activities? What is my role? Reflective practitioners often use journals, anecdotal records, logs and diaries to record information that, when reread later, will provide a mirror of their teaching.

- **Teaching or professional development portfolios** (Dietz, 1995; Zubizarreta, 1994). A teaching portfolio is a written, narrative document in which an individual organizes details of her teaching efforts and accomplishments. When the portfolio is prepared for professional development as well as teaching purposes it includes information about career, learning and personal goals, and may also focus on other matters related to learning such as preferred learning style.

  > *Most effective portfolios run eight to 10 double-spaced pages in length and offer selected information about a teacher's assigned responsibilities, philosophy, methods, materials, classroom experiments, participation in workshops and other professional development efforts, and teaching goals. Portfolios may also include evaluation from students, peers, and supervisors, along with student products that concretely demonstrate learning.* (Zubizarreta, 1994, p. 324)

  Although portfolios are sometimes examined by principals and directors during a teacher's performance evaluation, they have a more important role in that they provide an opportunity for self-learning. The process of selecting the items to be included in the portfolio and writing the narrative portion of the portfolio provides teachers with an opportunity to reflect on what, how and why they teach (Zubizarreta, 1994).

  Portfolios also often facilitate ongoing learning in that they make it possible for teachers to identify where they are now in terms of particular goals and to make plans for the learning and career and personal changes needed to achieve those goals (Dietz, 1995).

- **Reading printed materials and viewing audiovisual materials** (Lowry, 1989; Manning & Manning, 1994). These traditional types of learning can provide new information and ideas and contribute to personal and professional reflection.

Staff Development

Staff development has traditionally been defined as "the provision of activities designed to enhance the knowledge, skills and understandings of teachers in ways that lead to changes in their thinking and classroom behaviour" (Fenstermacher & Berliner, 1983, p. 4).

Although the terms "staff development" and "inservice education" are often used synonymously (Gall & Renchler, 1985), inservice education is just one of several ways that staff development can be accomplished. Staff development also includes most of the other types of learning mentioned in this literature review. Staff development is identified not by its format, but rather through the involvement of educational administrators and by its purpose.

All staff development programs or activities include the involvement of school, school board or provincial officials. These officials might facilitate teachers' participation in formal courses by paying their tuition, or they might establish formal programs at the school or district level in which teachers are encouraged or required to participate.

All forms of staff development cater to both teachers' individual needs and the needs of the system. Until the early 1980s, the emphasis was primarily on the individual teacher. It was believed that a change in individual teacher practice would translate into general school improvement, although studies show this isn't always the case (Sideris & Skau, 1994). During the past 10 years, the focus has shifted to put a greater emphasis on the needs of the system (Oldroyd & Hall, 1991). Staff development is now seen not only as a means of fine-tuning instruction but also as an important way of achieving reform or restructuring of the educational system (Darling-Hammond & McLaughlin, 1995; Oldroyd & Hall, 1991). The objectives of the education reform movement are to fundamentally change the way that schools operate, the nature of the educational process and the outcomes of education. Interestingly, the proponents of reform and restructuring often have conflicting or even contradictory views of what the eventual results should be.

> *The vision of practice that underlies the nation's reform agenda requires most teachers to rethink their own practice, to construct new classroom roles and expectations about student outcomes, and to teach in ways they have never taught before – and probably never experienced as students. "The success of this agenda ultimately turns on teachers' success in accomplishing the serious and difficult tasks of learning the skills and perspectives assumed by new visions of practice and unlearning the practices and beliefs about students and instruction that have dominated their professional lives to date".* (Darling-Hammond & McLaughlin, 1995, p. 597)

There is a huge body of literature on staff development and inservice education which has been the subject of several previous literature reviews (Joyce & Showers, 1980; Palmer, 1988; Thompson, 1984). Therefore, the topic is covered only very briefly in this study.

Most books and articles on staff development or inservice education include long lists of effective staff development principles (Darling-Hammond & McLaughlin, 1995; Ferguson, 1989; Oldroyd & Hall, 1991; Ryan, 1995; *Teachers' Professional Development and Education Reform*, 1993).

These principles differ from writer to writer; however, two elements mentioned by virtually all writers are the need for teacher involvement in making decisions about staff development and the role of school administrators in making staff development effective. These elements are discussed in more detail below.

Teacher Involvement

Staff development programs and activities will only be accepted by staff and will only achieve their desired outcomes if staff are fully involved in making decisions about those programs and activities. Two types of involvement are necessary:

1. involvement during the needs assessment phase when making decisions about the problems, topics, issues and themes to be addressed through staff development

2. involvement in shaping the actual activities. Will the issues identified be addressed through a peer coaching program, through a field trip or through a traditional half-day workshop? Who will the presenters or activity leaders be?

Ryan (1995) points out that some teachers may not want to be involved in planning for staff development, but that even this cannot be determined without involvement. He says "the elegantly simple conclusion is that if one wants to know the pattern of involvement that particular teachers prefer in planning for and expediting inservice education, it will be necessary to ask them" (p. 6).

This recognition of the importance of teacher involvement is somewhat at odds with the current emphasis on staff development as a means of bringing about educational reform or restructuring. Implicit in some of the literature on school reform is the assumption that teachers will be required to participate in inservice activities in order to change their attitudes and behaviour and thus implement reform.

The Role of Administrators

Administrators include school board members, directors of education, principals and vice-principals. At the school board and director level, a well designed staff development policy is crucial. The policy should spell out the purpose of staff development and how it relates to ongoing school reform or restructuring efforts. It should also specify the roles and responsibilities of the various players. It is through such role definition that teacher participation in planning staff development programs is ensured.

At the school level, the principal's role should be helping with the process and ensuring that things happen rather than teaching inservice sessions. "Principals have a responsibility to inform teachers of professional development opportunities. As well, they should disseminate professional and curriculum materials, focus staff attention on specific themes, solicit teachers'

opinions, encourage experimentation, and encourage individual teacher achievement" (Palmer, 1988, pp. 20-21).

Resources, in the form of money, materials and time can be provided at both the school division and the school level. Although successful staff development doesn't depend solely on resources, resources do help (Ferguson, 1989; Oldroyd & Hall, 1991; Palmer, 1988; *Professional Development Policy for Tennessee's Schools*, 1992; Ryan, 1995).

SURVEY FINDINGS

Formal Learning

Survey respondents were asked about the types of formal learning activities they had participated in during the past five years (Table 10). The most common formal learning activity was Saskatchewan Teachers' Federation short courses, followed by undergraduate and graduate courses in education which had roughly the same degree of importance. Answers to this survey question indicate that many people participate in a particular learning activity for both career and personal growth purposes and that learning activities cannot easily be categorized as being only for one purpose or the other.

Table 10

Types of Formal Learning Activities that Survey Respondents Participated in During Last Five Years

Formal Learning Activities	Purpose			Method of Delivery				
	%			%				
	Personal Learning or Growth	Career Purposes	Both	Classroom	Distance Education	Correspondence	Classroom and Distance Education	Classroom and Correspondence
Undergraduate courses in education	3.7	9.1	6.1	17.1	0.6	0.6		
Graduate courses in education	3.0	9.1	8.5	16.5	1.2	0.0	3.7	
Undergraduate university courses in an area other than education	5.5	4.3	3.0	7.9	1.8	0.6		0.6
Graduate university courses in an area other than education	0.6	2.4	2.4	3.7	0.6		0.6	0.6
STF short courses	10.4	8.5	9.8	22.0	1.8		0.6	
SIAST courses	1.8	1.8	2.4	5.5		0.6		
Regional college courses	6.1	1.2	1.2	6.7	0.6		0.6	0.6
Other	4.3	3.0	12.2	14.0			0.6	0.6

A large American study (Kopka & Peng, 1993) found that men were more likely to enroll in courses to improve or update their work skills in their present jobs; women were more likely to enroll in courses for personal, family or social reasons. This was not the case in the survey conducted as part of this study (Table 11), where no clear patterns regarding male and female participation in formal learning activities were evident.

Table 11

Female and Male Participation in Formal Learning Activities During the Last Five Years – Survey Respondents

Formal Learning Activities	Personal Learning or Growth		Career Purposes		Both Purposes	
	%		%		%	
	Females	Males	Females	Males	Females	Males
Undergraduate courses in education	2.9	5.1	8.7	10.2	7.7	3.4
Graduate courses in education	2.9	3.4	10.6	6.8	6.7	11.9
Undergraduate university courses in an area other than education	5.8	5.1	3.8	5.1	3.8	1.7
Graduate university courses in an area other than education	0.0	1.7	2.9	1.7	3.8	0.0
STF short courses	9.6	11.9	9.6	6.8	10.6	8.5
SIAST courses	1.9	1.7	1.0	3.4	1.9	3.4
Regional college courses	8.7	1.7	1.0	1.7	1.0	1.8
Other	6.7	0.0	3.8	1.7	12.5	11.9

Informal Learning

Survey respondents were asked about their participation in informal learning activities during the past five years (Table 12). The percentage of people who reported participating in informal learning activities was much higher than the percentage who reported participating in formal activities. Reading was the most common informal learning activity followed by watching TV or videos. People read or watched TV or videos for personal learning or for both personal and career purposes more frequently than they did for career purposes alone.

The responses to this question, like the responses to the question about formal learning, again illustrated that many people participate in a learning activity for more than one reason.

Table 12

Types of Informal Learning Activities that Survey Respondents Participated in During Last Five Years

Informal Learning Activities	Personal Learning or Growth	Career Purposes	Both Purposes
	%		
Reading	27.4	3.7	57.9
Watching TV or videos	26.2	3.0	46.3
Mentoring programs (e.g. supervising student teachers)	15.2	9.1	16.5
Peer coaching with a colleague	11.0	12.2	12.2
Discussion or study groups with others with shared interests	18.9	15.2	32.3
Independent learning on the computer	16.5	4.3	34.8

Males tended to report participating in informal learning activities for personal learning alone or career purposes alone slightly more than females. However, there were no clear gender patterns for informal learning activities undertaken for both purposes simultaneously (Table 13).

Table 13

Female and Male Participation in Informal Learning Activities During Last Five Years

Informal Learning Activities	Personal Learning or Growth		Career Purposes		Both Purposes	
	%		%		%	
	Females	Males	Females	Males	Females	Males
Reading	26.9	28.8	2.9	5.1	63.5	49.2
Watching TV or videos	24.0	30.6	1.9	5.1	5.0	40.7
Mentoring programs (e.g. supervising student teachers)	19.4	16.9	8.7	10.2	16.3	16.9
Peer coaching with a colleague	7.7	16.9	10.6	15.3	16.3	5.1
Discussion or study groups with others with shared interests	19.2	18.6	12.5	20.3	39.4	20.3
Independent learning on the computer	18.3	13.6	4.6	3.4	34.6	35.6

Future Importance of Formal and Informal Learning Activities

Survey respondents were asked to rate on a five-point scale the importance of various types of learning activities in terms of their career and personal plans (Table 14). Reading was rated as the most important learning activity. Discussion or study groups with others with shared interests was second, independent learning on the computer was third, and graduate courses in education was rated fourth.

Table 14

Importance of Various Learning Activities to Survey Respondents in Terms of Personal and Career Plans

Learning Activities	Not Important				Very Important
	%				
	1	2	3	4	5
Undergraduate courses in education	39.0	13.4	19.5	11.0	9.1
Graduate courses in education	24.0	9.1	19.5	20.7	19.5
Undergraduate university courses in an area other than education	32.9	11.6	26.2	14.6	6.7
Graduate university courses in an area other than education	34.8	11.0	22.6	14.6	9.1
STF short courses	24.4	13.4	26.8	20.1	5.5
SIAST courses	45.7	19.5	17.1	5.5	0.6
Regional college courses	36.6	22.6	20.1	9.8	0.6
Reading	1.8	1.8	12.2	30.5	51.2
Watching TV or videos	8.5	11.6	33.5	26.2	13.4
Mentoring programs (e.g. supervising student teachers)	14.0	11.6	30.5	23.8	10.4
Peer coaching with a colleague(s)	12.8	11.6	28.7	23.8	12.8
Discussion or study groups with others with shared interests	6.1	9.5	20.7	29.9	28.7
Independent learning on the computer	8.5	11.0	20.1	34.8	18.9
other (please specify)	1.2	0.0	3.7	0.0	1.8

Note. Some horizontal columns do not total 100% due to missing responses.

Inservice Education

Most school divisions offer formal inservice sessions to their staff. 89.6 percent of survey respondents said that they had participated in formal inservice offered by a school division or other employer during the past five years (Table 15). Most survey respondents considered the employer-sponsored inservice in which they had participated to be reasonably satisfactory (70 percent rated it as either a *3* or a *4* on a five-point scale in terms of meeting their career-related needs) (Table 16).

Table 15

Survey Respondents' Participation in Inservice Offered by School Board or Other Employer During Past Five Years

Participation in Inservice		%
Yes	–	89.6
No	–	7.9
No response	–	2.4

Table 16

Extent to Which Employer-Sponsored Inservice Met Survey Respondents' Career-Related Needs

Unsatisfactory				Highly Satisfactory
%				
1	2	3	4	5
3.0	9.8	28.5	41.5	7.3

Note. There was a 9.8% non-response rate to this question.

INTERVIEW FINDINGS

When asked about the types of learning which are important to them, virtually all interview subjects mentioned formal university studies. However, because two-thirds of the interview subjects were graduate education students, they may have had a bias in this direction. Formal university study was not the only type of learning considered important. Most interview subjects also mentioned STF short courses, STF special subject council activities and conferences. Interview subjects appeared to consider these short courses as most useful for meeting their need to improve specific teaching skills, and to stay abreast of developments in their field or provincial developments such as Core Curriculum. They appeared to view university courses, particularly graduate courses, as most useful for moving ahead in their careers or satisfying the need for achievement. Both short courses and formal academic study were seen as valuable ways of satisfying an intrinsic desire to learn.

Other types of learning that were mentioned by interview subjects included:

- personal growth activities such as individual and group therapy, and self-help groups
- observing one's own children
- changing one's teaching assignment every few years
- planning and delivering inservice for other teachers in the school and school division
- participating in Saskatchewan Education and Saskatchewan Teachers' Federation committees
- participating in teacher bargaining.

MAKING POST-DEGREE LEARNING EASIER

OBSTACLES TO LEARNING

Survey Findings

Survey respondents were asked about the extent to which various factors limit their participation in ongoing learning activities. They said that lack of time was the biggest obstacle followed by family responsibilities (Table 17). There is a common belief that family responsibilities present a greater obstacle for women than for men. Survey results did not support this belief (Table 18). The percentage of females and males who considered family responsibilities to be a major obstacle to ongoing learning (*4* or *5* on a five-point scale) was approximately equal – 56.7 percent and 54.2 percent. A greater percentage of females (15.4 percent) than males (8.5 percent) said that family responsibilities were no obstacle to ongoing learning (*1* on a five-point scale).

Table 17

Survey Respondents' Perceptions of Factors that Limit Their Participation in Ongoing Learning

Limiting Factors	Not at All				A Great Deal
	%				
	1	2	3	4	5
Lack of time	4.9	4.9	14.6	22.6	48.8
Lack of money	13.4	14.0	24.4	17.1	27.4
Family responsibilities	12.8	11.6	15.2	23.2	32.3
Limitations (such as a hearing or visual disability)	85.4	4.9	1.2	1.2	1.2
Limited access to resources such as books and videos	53.0	15.2	17.7	4.3	2.4
Distance from an educational institution	44.5	6.1	9.1	17.1	18.3
Other (please specify)	1.2	0.6	0.6	0.0	2.4

Note. Some horizontal rows do not total 100% due to missing responses.

Table 18

Female and Male Survey Respondents' Perception of the Extent to Which Family Responsibilities Limit Their Participation in Ongoing Learning

Gender	Not at All				A Great Deal
	%				
	1	2	3	4	5
Females	15.4	11.5	12.5	22.1	34.6
Males	8.5	11.9	20.3	25.4	28.8

Interview Findings

Some of the interview subjects commented upon obstacles to ongoing learning. Time constraints were a major obstacle for most. Most said that ongoing learning activities, and formal university classes, in particular, take a huge amount of time and energy. Other obstacles were:

- difficulty balancing work, family and study (mentioned by men as well as by women)
- distance from one of the province's two universities
- the nature of university study itself. One person said that many graduate classes are dated and out of touch with the classroom, another said that some graduate classes are highly academic and that a great deal of work is needed for successful completion. However, in contrast to these comments, another interview subject said that university education should be focussed on theory or ideas and that these sometimes suffer when too much effort is put into linking courses to the classroom.

EMPLOYER SUPPORT FOR LEARNING

Survey Findings

Survey respondents were asked about the extent to which various types of employer-sponsored incentives would encourage them to participate in ongoing learning activities. Time off with pay was the greatest incentive followed by a salary increase upon successful completion of a course. Paid tuition was the third most important incentive (Table 19).

Table 19

Survey Respondents' Perceptions of the Degree of Incentive of Employer-Sponsored Activities

Employer-Sponsored Activities	No Incentive				High Incentive
	%				
	1	2	3	4	5
Paid tuition	4.3	3.0	17.1	25.6	43.6
Time off with pay	4.3	1.2	7.3	16.5	66.5
Time off without pay	34.1	15.2	29.9	9.8	4.9
Salary increase upon successful completion of course	6.7	1.8	11.6	29.9	43.3
Increased or expanded responsibility	9.1	9.8	27.4	29.9	18.3
Recognition at a banquet or other function	59.8	21.3	7.3	3.7	0.6
Other (please specify)	1.8	0.0	0.0	0.6	3.7

Note. Some horizontal rows do not total 100% due to missing responses.

Interview Findings

Some of the interview subjects commented on things that employers can do to encourage their employees to participate in ongoing learning activities. Several of the people who made comments about incentives began by saying that their school board already provides some incentives such as full or partial tuition for job-related classes and the opportunity to apply for paid leave. They expressed their appreciation for these incentives.

Interview subjects said that the most significant incentive to ongoing learning that an employer can provide is time off with pay. One person suggested that reducing the workload of teachers who are studying part-time would be a significant incentive. Another person said that universities could do more to encourage teachers and others to take graduate courses by ensuring that their courses are up to date and relevant to the classroom.

POST-DEGREE LEARNING OPPORTUNITIES FOR EDUCATION GRADUATES IN SASKATCHEWAN

Various programs, courses, and informal learning activities can be accessed by Saskatchewan education graduates for both professional and personal learning. A brief overview of those learning opportunities is given below. The list below is by no means exhaustive. It simply identifies the learning opportunities that are most likely to be accessed by education graduates.

UNIVERSITIES

Education graduates typically complete graduate degrees or diplomas in education in order to enhance their career prospects. They may complete a second bachelor's degree in a subject area such as biology or French for the same purpose, out of interest or as preparation for a career change. Individuals often also take one or two subject area courses on an isolated basis, because they are interested in the area or because increased knowledge of the area would enhance their teaching, not because they want a degree in the area.

Both the University of Regina and the University of Saskatchewan offer the following opportunities:

- master's degrees in a number of educational areas
- post-graduate diplomas in a number of educational areas
- undergraduate education courses of various types which are required for teachers to be accredited
- bachelor's degrees in the Faculties or Colleges of Arts and Science in subject areas such as biology, geography, linguistics, French, German, Indian studies, computer science, etc.

The University of Saskatchewan's Department of Educational Administration has a regular doctoral program. Programs leading to the doctoral degree in other areas of education are available only to exceptional students on a special case basis. At the University of Regina, doctoral programs in education can be arranged in special circumstances, and the Faculty of Education is working on establishment of a regular doctoral program.

TECHNICAL INSTITUTES AND REGIONAL COLLEGES

There are four Saskatchewan Institutes of Applied Science and Technology (SIAST) in Saskatchewan. There are nine regional colleges. These institutions offer programs in a variety of practical areas as diverse as diploma nursing, youth care worker, library technician, office education, computer information systems, cosmetology. Education graduates who take a certificate or a diploma in one of these areas usually do so in order to facilitate a career

change. Graduates who take one or two courses in an area usually do so because they are interested in the area or because knowledge of the area will enhance their teaching. For example, a teacher might take computer courses so that she can design computer-assisted learning programs for her students or teach computer education.

The regional colleges serve as brokers for the two universities and in this capacity offer some first- and second-year university courses. Education graduates sometimes take these university courses either as part of a second bachelor's degree, out of interest or because they have relevance to the teacher's subject area.

EDUCATIONAL SHORT COURSES

The Saskatchewan Teachers' Federation offers short courses specifically designed for teachers each summer. These courses are held at a variety of locations around the province. Courses typically focus on subject area content or classroom management. Courses offered in the past included *Technology in the School Library*, *Success with Discipline*, and *Individualizing Your Spelling Program*. Teachers attend these courses voluntarily, although they may receive financial reimbursement from their school divisions. The courses are not limited to teachers. Any interested people can attend, regardless of whether they are education graduates or teachers.

The Saskatchewan Professional Development Unit (SPDU) in Saskatoon and the Saskatchewan Instructional Development and Research Unit (SIDRU) in Regina have published the *Instructional Strategies Series* of booklets. The booklets in this series focus on specific instructional strategies such as concept attainment, questioning, effective lecturing and creative problem solving. The two professional units have developed workshops on most of these topics which they will deliver on a fee-for-service basis for school divisions. They sometimes also schedule these workshops as independent programs.

NON-CREDIT COURSES

There are literally dozens of institutions in Saskatchewan that offer non-credit courses of many different types. Education graduates usually take these courses because of personal interest or because the classes will enhance their performance as teachers. A few of the institutions that offer non-credit courses include:

- City of Regina. Programs in a wide range of sports, recreational and cultural areas including swimming, woodworking, photography, oil painting, drawing and creative writing.

- Wascana Institute (SIAST – Regina). Programs in career and personal interest areas such as entrepreneurial development, computer education, graphic arts, photography, emergency health care. The three other SIAST institutes offer similar courses.

- Language Institute, University of Regina. Non-credit courses in French, Cree, Mandarin, German and several other languages.

SCHOOL AND SCHOOL DIVISION INSERVICE

Most school divisions in Saskatchewan provide inservice education for teachers. Typically, students are released from school for a day or half-day and teachers participate in inservice. Teachers may be able to choose from among several different sessions or they may be required to attend one particular session.

School division inservice sessions are provided by a variety of individuals and organizations including:

- SIDRU and SPDU which offer the workshops described in the previous section on a fee-for-service basis
- Saskatchewan Education whose staff are sometimes available to deliver workshops related to the implementation of new curricula
- Private consultants, university faculty, and other subject specialists
- Teachers from within the school division or from other school divisions.

INDIVIDUAL LEARNING

Individual learning often involves reading printed materials or experiencing audiovisual materials or interacting with media or other individuals via the computer. There are literally thousands of Saskatchewan sources for these items – every school library, public library and bookstore is a gold mine for individual learners. Four of the most popular sources of materials for individual learning are:

- Media House Productions has hundreds of videotape masters which can be duplicated for a small fee and films available for free loan. The collection includes about 50 titles on educational topics and hundreds that are subject specific.
- Stewart Resource Centre, Saskatchewan Teachers' Federation, Saskatoon, has thousands of books and audiovisual materials on educational topics available for loan.
- University of Regina and University of Saskatchewan libraries have huge collections that include print and non-print materials. All materials can be borrowed free of charge by people taking graduate or undergraduate classes. Members of the public can purchase a borrower's card.
- The Internet. Many people now use the Internet as a source of information and as a way of interacting with others with shared interests.

DELIVERY OF POST-DEGREE LEARNING

FROM THE LITERATURE

What is Distance Education?

Traditionally, face-to-face classroom interaction has been used to deliver most educational programming, including programs accessed by education graduates. Classes usually meet for one to three hours at a time, one to three times per week at a central location.

This traditional format is changing, as universities and other adult education institutions try to make their classes accessible to a larger number and a greater range of students. Education institutions are placing more emphasis on evening courses and some have introduced weekend courses. In Saskatchewan, courses have been offered via distance education for almost 70 years. Because distance education is an innovative delivery medium, well-suited to the needs of people who are working (as many education graduates are), it is discussed here at length.

Many complex definitions of distance education have been proposed, but all acknowledge that the teacher and learner are separated but still have the ability to communicate with each other (*Distance Education in Saskatchewan*, 1991; Holmberg, 1989; Keegan, 1982).

The primary purpose of distance education is to extend access to reach students for whom a university education might not otherwise be available (Paul, 1989). Frequently, extending access is seen as overcoming geographical barriers, but it can also mean providing access to educational opportunity for people who face barriers such as age, gender, physical or psychological disability, financial limitations, employment or family obligations, etc. (*Response to the Distance Education Discussion Paper*, 1992). For example, Athabasca University, an Alberta distance-learning university, has consistently found that 60 to 62 percent of its students are women (Coulter, 1989) who may have family as well as job responsibilities. It has also found that a significant proportion of its students come from Edmonton and Calgary which have large universities (Thompson & Devlin, 1992). For these students, distance education is presumably more convenient than conventional classes.

Distance Education in Saskatchewan

The Saskatchewan Communications Network (SCN) facilitates delivery of interactive televised distance education programming in Saskatchewan. Distance education programs can be delivered through a narrowcast network to receiving centres in approximately 54 communities. People taking televised distance education courses gather at a receiving site at a designated time to view a presentation, participate in local and televised discussions, and interact with the course instructor. Educational institutions (both postsecondary and high school), business and professional organizations all rely upon SCN's support to deliver distance education programming.

Below is a brief overview of distance education programming in Saskatchewan's post-secondary institutions. Because distance education programming changes each year, potential students are advised to contact the educational institutions directly for specific details.

- **University of Regina.** Each year the University of Regina delivers about a dozen undergraduate courses through SCN. The actual courses delivered varies from year to year but typically includes courses in education, social work, Indian studies and several courses from the Faculty of Arts.

  The University of Regina has offered graduate courses through computer-mediated instruction for several years. In the 1996-97 school year, two undergraduate education courses were offered in this way. As well, the University of Regina delivers about a dozen non-credit courses through correspondence instruction.

- **University of Saskatchewan.** The University of Saskatchewan has been delivering distance education courses since 1929. Presently, a wide range of distance education courses are available, but only a few of them are specifically directed at teachers or education students. At the degree level, the U of S typically delivers about 50 independent study courses, about four televised courses, and a couple of multi-mode courses. The multi-mode courses incorporate various technologies in their delivery, including a face-to-face component. Delivery of courses via the Internet started during the 1996-97 year and will be expanded soon.

  Courses offered for degree credit include eight College of Education courses, mainly in teaching English as a second language. The other degree courses are primarily from the College of Arts and Science or the College of Nursing. The College of Education is developing some courses, including graduate courses, to be delivered by other methods of distance education, such as computer-mediated instruction. These should be available soon. In addition, the U of S offers several certificate programs by distance education. A couple of these programs are in the agriculture/horticulture area, but there is also a Certificate in Adult and Continuing Education (in cooperation with three other western Canadian universities) and a Certificate in Teaching English as a Second Language, the only one of its kind in North America. It is expected that more distance education courses in education will be offered in the future, especially at the graduate level.

- **Saskatchewan Indian Federated College.** SIFC has been offering televised distance education courses through SCN since 1990. Each year about half a dozen courses are offered. Those courses are consistent with First Nations' cultural values and address the mission and mandate of SIFC.

- **Saskatchewan Institute of Applied Science and Technology (SIAST).** SIAST offers about a dozen and a half distance education courses each year through SCN. As well, it offers some distance education courses through independent study (based on print, audio or video materials) and multimedia (based on a variety of media including face-to-face components, labs and clinical experience).

- **Regional Colleges.** Saskatchewan's nine regional colleges broker some first- and second-year university classes. Some of these are delivered wholly or partially through distance education. Specific courses offered and technology used for delivery of distance education courses varies from one regional college to another and from one year to another.

Planning for Distance Education

What effect does distance education have on student achievement? A study (Wong, 1988) of University of Saskatchewan students who participated in televised courses found no significant differences in the final grades of students who participated in the televised classes and those who were enrolled in face-to-face classes. Other studies report similar findings (Apps, 1992; Figueroa, 1992; Souder, 1993).

However, distance education differs from face-to-face instruction in many important ways and is most effective if its unique nature is recognized.

The technology or combination of technologies that are used to deliver distance education is an important consideration. Printed lessons, sometimes supplemented with audio or video tapes or with telephone conversations with instructors, are the traditional technology. In recent years, many other technologies such as television, telephone conferencing, interactive video, videodisc, computer programs, the Internet and other interactive computer systems have been used to deliver distance education. Sometimes these technologies are supplemented by face-to-face meetings between students in the program, or telephone conversations between student and instructor.

Theorists suggest that the equipment used to deliver a distance education program should only be selected once educational needs and the programming that will meet them have been identified (Roberge, 1990). In reality, institutions delivering distance education programs usually have to use the technology and equipment available in their geographic area and the technology to which a majority of potential students have access (Perry & Rumble, 1987). It is usually not possible to establish completely new technological infrastructures for a specific program.

To establish a distance education program it is necessary to establish five subsystems and to knit them together. These subsystems are:

- design of materials
- production of materials
- distribution of materials and of teaching and support services
- assessment of learners
- system management and maintenance of records of the learners (Perry & Rumble, 1987).

Each of these subsystems is discussed in more detail below.

- **Design of materials.** In most distance education programs, students learn wholly or partially from materials prepared by teachers rather than directly from a teacher (Perry & Rumble, 1987). Thus, the quality and design of the materials is crucial.

  Each different technological format makes specific demands on the materials developer (De Bloors, 1982; Elford, 1986; Kesten & Burgess, 1987). Designing a program for delivery via traditional printed lessons is quite different than designing one for delivery via videodisc for example. Despite these differences, some basic principles guide the development of all distance education materials.

  - Ensure that the materials are completely free from errors of fact and wholly unambiguous.
  - Write in a simple, clear style that is free from jargon and suitable for a popular audience.
  - Organize the materials so they are easy to follow by using lists of contents, explanatory titles, introductions and conclusions, and by arranging the materials so that ideas and concepts lead naturally into each other.
  - Prepare the materials in chunks which will occupy the student for no more than one hour at a time.
  - Plan the materials so that students are required to do things – answer questions or do experiments for example. Passive listening, viewing or reading is boring.
  - Vary the way that material is presented through the use of illustrations, cartoons, diagrams and by varying voice or style of delivery in audio or video presentations (Perry & Rumble, 1987).

- **Production of materials.** Production of materials includes printing copies of texts, producing television programs or making multiple copies of audio or videocassettes. It is important that materials be produced so they reach students at the right time and so that the finished product is of good technical quality (Perry & Rumble, 1987).

- **Distribution of materials.** It is important that materials be delivered to students when they need to use them. Delivery can be to students' homes or to a local centre where students can use or collect the material. The exact method of delivery will depend upon the technology being used. For example, the method used to deliver printed lessons, by necessity, will be different from the method used to deliver a course via the Internet. In every case, students need to know exactly what materials they will receive, and when and where they will receive the materials (Perry & Rumble, 1987).

- **Assessment of learners.** When making plans for assessment of distance education learners, educators will have to answer questions such as:

  - How will learners be evaluated – on the basis of completed assignments, on the basis of mid-term or final exams?

  - If exams are used, will students write the exams individually without supervision? Will they be supervised by someone in the local community? Will students come together at a central location to write their exams (Perry & Rumble, 1987)?

- **System management and maintenance of learners' records.** It is necessary to keep track of the students who are enrolled in the program and of individual students' progress. This usually necessitates a central record-keeping capacity (Perry & Rumble, 1987).

Providing for interaction is an important challenge for distance educators. Previous literature reviews (Thompson, 1990) and many individual studies (Gibson & Graff, 1992; Kesten & Burgess, 1985; McInnis-Rankin & Brindley, 1986) all indicate that distance education is more meaningful and students learn more effectively if students can interact with instructors or each other. The way that this interaction is provided depends upon the technology used to deliver the program and the geographic situation. Teleconferencing, one-on-one telephone conversations, videoconferencing, meetings at a central location and computer conferencing are all used to provide for interaction.

It is widely recognized that instructors may need special training and special skills to teach a course via distance education (Bale, 1990; Burge, 1994; McInnis-Rankin & Brindley, 1986; Perry & Rumble, 1987). Teaching via distance education is distinctly different than teaching in a classroom.

What is not so well recognized is that students may need special training and special skills to learn effectively through distance education. They may need instruction in using the technology and may need some practice before the class begins (Kesten & Burgess, 1985; McInnis-Rankin & Brindley, 1986; Thompson, 1990). They may also need to master new learning skills that are specific to the technology being used. For example, it has been found that to learn effectively in computer conferencing situations, students need to master four behaviours – participation; responding to others; providing feedback to others; and writing short, focussed messages (Burge, 1994).

SURVEY FINDINGS

Table 10 shows that classroom instruction has been the predominant means of delivering post-degree learning during the past five years. This may be due to lack of availability of distance education programs, but it may also be due to student preference.

Survey respondents were asked to rate, on a five-point scale, the extent to which several different methods of delivering post-degree learning programs meet their needs (Table 20). The methods which received the largest percentage of *3*, *4* and *5* ratings were:

- courses delivered face-to-face by an instructor that meet once a week
- courses delivered face-to-face by an instructor that meet one or two weekends a month
- summer short courses (1-5 days) in a city.

Table 20

Survey Respondents' Preferred Means of Delivering Ongoing Learning

Means of Delivery	not important				very important
	%				
	1	2	3	4	5
Courses delivered face-to-face by an instructor that meet once a week	11.0	8.5	24.4	25.0	24.0
Courses delivered face-to-face by an instructor that meet one or two weekends a month	16.5	9.8	25.6	22.0	20.1
Summer short courses (1-5 days) in a city	13.4	7.9	25.6	26.8	22.6
Traditional summer school courses at the U of R or the U of S	21.3	7.9	30.5	17.7	13.4
Correspondence courses in which you work alone with printed lessons, textbooks and videos	24.4	18.9	23.8	14.6	10.4
Distance education in which students gather at specific times to view televised SCN presentations, participate in group activities and interact via technology with the instructor	29.3	17.7	25.6	12.2	6.7
Courses delivered on the Internet	31.1	14.0	29.3	7.3	9.1
Other (please specify)	3.0	0.0	1.2	1.2	1.8

Note. Some horizontal rows do not total 100% due to missing responses.

In order to assess the potential for delivery of post-degree and other adult education programs through distance education, survey participants were asked to indicate the types of technology to which they have access (Table 21). The most common technology was a VCR, to which 93.9 percent of respondents had access – more than had access to frequent and reliable postal service. Only 39.6 percent said they had access to SCN receiving sites which are presently a major means of delivering distance education. The survey did not provide enough

information to determine whether this was actually the case or whether respondents were simply unaware of the location of SCN receiving sites.

Table 21

Types of Technology to Which Survey Respondents Have Access

Types of Technology		%
Internet work station	–	63.4
Multiple television channels through either cable TV or satellite dish	–	67.1
An SCN receiving site	–	39.6
VCR	–	93.9
Speaker phone	–	30.5
Frequent and reliable postal service	–	91.5
Other	–	7.9

Note. Percentages total more than 100% because respondents checked as many as applied.

INTERVIEW FINDINGS

Interview subjects talked about the need for flexibility with traditional face-to-face classroom instruction. Several said that being able to do a project or a practicum rather than a thesis made the master's program more accessible. However, they also talked about the need to find new schedules for delivering classroom instruction. For example:

- A full-time graduate student said that all graduate education courses are offered in the evening – convenient for part-time students but not for full-time students.

- A teacher with family responsibilities said that the usual graduate course format – one or two evenings per week – was largely responsible for her decision not to pursue graduate studies. She said that this format means that if you are taking a course, there is no time for anything but study, work and family – no time to attend movies or theatre, for example. This teacher said that a program where students could attend full time for three summers would be more convenient for many teachers.

Two interview subjects who worked in 8-5 jobs in education-related fields said that the manner in which graduate courses are organized is convenient for part-time students, but that university support and administrative services don't reflect the needs of part-time students. For example, the university library was closed between Christmas and New Years (prime time

for part-time students) and potential students have to go to the university in person to register for courses because registrations are not taken over the phone.

Some interview subjects compared the situation in Saskatchewan and in Canada generally to universities in the United States and said that many American universities are more flexible and less bound by rigid rules.

Several students talked about administrative measures that might be taken by educational institutions in order to make it easier to get a graduate degree. For example:

- The University of Regina and the University of Saskatchewan might offer degrees jointly so that students can take courses at both institutions.
- The universities could drop the requirement that a graduate degree must be completed within five years.
- The universities could grant partial credit for Saskatchewan Teachers' Federation short courses and similar types of learning.
- The universities could be less restrictive about recognizing courses taken at other universities, particularly American universities.

All interview subjects who talked about delivery of educational programs said that their preferred mode of delivery was with other learners where there is interaction, discussion and dialogue. None said that distance education was their first choice. However, several said that distance education, while it would not be their first choice, would be a way of making educational programs available to those who live in rural areas. They said that distance education might also be a way of bringing specialized programs (such as library science) to Saskatchewan. The interview subjects did not discuss specific types of technology that might be used to deliver distance education.

CONCLUSION

Major findings of the Education Graduates Post-Degree Learning Needs Study and the implications of these findings are:

Major Findings	Implications
1. Education graduates participate in learning activities for many different reasons, with becoming more skilled at one's present job, and personal growth and satisfaction topping the list.	▸ No single program, or category of programs, can meet the ongoing learning needs of all education graduates. Because graduates participate in learning activities for many different reasons, a variety of programs and types of programs are needed.
2. Education graduates participate in informal learning activities such as reading and watching TV and videos more frequently than they do in formal structured classes.	▸ Anything that school divisions and professional organizations can do to facilitate informal learning would be useful. This might include facilitating access to professional literature and videos, and encouraging teacher study and discussion groups.
3. Many individuals participate in a learning activity for more than one reason – career and personal motivations are often interwoven.	▸ Learning activities that respond to more than one need are likely to be more popular than those that are very narrowly focussed. For example, a university course that helps a teacher become more skilled at her job is likely to be more popular than one that only contributes to getting a credential.
4. For some individuals, learning is a major theme that permeates all of their life choices.	▸ Structuring jobs (including teaching jobs) so that voluntary opportunities for new experiences and change are built in, will partially meet the learning needs of some individuals.
5. Academic university courses are an important means of learning for most education graduates, but they are not the only means. The importance of various means of learning varies with the individual.	▸ A range of different learning activities and categories of activities is needed.

Major Findings	Implications
6. Education graduates say that the types of learning that are most important to them for the next five years in terms of their personal and career plans are reading, discussion or study groups with others, independent learning on the computer, and graduate courses in education.	▸ Books, journals and videos are traditional means of informal learning for many education graduates. The computer appears to be an increasingly popular means of informal learning. While the Internet should not be used to the exclusion of traditional means, putting information on the Internet would be another way of supporting informal learning.
7. Lack of time is a major obstacle to participation in formal structured learning activities for most education graduates.	▸ Reducing or easing the workload of teachers who are taking university classes would make it easier for them to participate in formal studies. ▸ Scheduling university classes in a variety of ways, other than the traditional one evening per week format, would make them more accessible to people with busy schedules.
8. Time off with pay would be the most significant incentive that employers could offer to encourage post-degree learning.	▸ Offering full- or part-time paid leave would be an important way that school divisions could encourage teachers to continue formal learning.
9. Most education graduates prefer face-to-face instruction where there is interaction with others for the delivery of educational programs.	▸ Regardless of how educational courses are delivered, those that build in opportunities for interaction with others are likely to be the most meaningful, popular and successful.
10. Although distance education would not be the first choice of most, they recognize it as a realistic alternative for making learning more accessible.	▸ Distance education has the potential to reach more students and to make specialized programs available. However, it should not be the only means of delivering programs.

Major Findings	Implications
11. The percentage of survey respondents that have access to various technologies is as follows: • Internet work station – 63.4% • multiple television channels through either cable TV or satellite dish – 67.1% • an SCN receiving site – 39.6% • VCR – 93.9% • speaker phone – 30.5% • frequent and reliable postal service – 91.5% • other – 7.9%	▸ SCN could do more to publicize the location of its receiving sites. ▸ Educational institutions should not rely on SCN exclusively to deliver distance education programs. ▸ No single type of technology can reach all potential students in Saskatchewan.
12. Greater flexibility and more alternatives in terms of course scheduling would make face-to-face university courses more accessible and convenient.	▸ Saskatchewan's two universities could offer courses in formats other than the traditional one evening per week format. Weekend courses and modular courses are possibilities.
13. More flexibility in terms of administrative rules and courses accepted for credit would make graduate university study easier for some people.	▸ Saskatchewan's two universities could examine their program requirements, administrative rules, and regulations concerning courses from other institutions that are accepted for credit with a view to bringing them into line with the highly flexible programs offered by some American universities.

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APPENDICES

APPENDIX A

SURVEY

SURVEY

EDUCATION GRADUATES' POST-DEGREE LEARNING NEEDS STUDY

Background Information

1. How old are you?

   ☐ under 25 ☐ 36 to 45 ☐ 56 to 65
   ☐ 25 to 35 ☐ 46 to 55 ☐ over 65

2. What is your gender?

   ☐ female ☐ male

3. In what year did you receive your undergraduate degree in education? _____

4. In what area of the province do you live?

   ☐ North ☐ West Central ☐ Southwest
   ☐ East Central ☐ Southeast

5. Do you live:

   ☐ in a city ☐ in a village ☐ on a farm
   ☐ in a town ☐ on an acreage

6. (a) Do you have children living at home?

   ☐ yes ☐ no

   (b) If you have children living at home, how many do you have in each of the age categories below?

   ___ 0 to 5 ___ 9 to 11 ___ 15 to 18
   ___ 6 to 8 ___ 12 to 14 ___ 19 or over

Past and Present Employment Status

7. What was your employment status as of September 1996? Check one.

- ☐ teaching full-time
- ☐ teaching part-time
- ☐ working in an education-related field but not teaching
- ☐ working in a field unrelated to education
- ☐ student
- ☐ home maker
- ☐ unemployed
- ☐ retired or semi-retired
- ☐ other _____

8. (a) Are you satisfied with your employment status?

☐ yes ☐ no ☐ neutral

(b) If you are not satisfied, how would you like your employment status to be different?

_____

_____

_____

(c) Why?

_____

_____

_____

9. (a) Do you consider your employment status to be better, worse or unchanged from five years ago?

☐ better ☐ worse ☐ no change

(b) Why?

_____

_____

_____

Past Learning Activities

10. In which of the following types of **formal** learning activities have you participated during the past five years (or in years since you left university if you graduated less than five years ago)? Check as many as apply.

	Purpose		Method of Delivery		
	personal learning or growth	career purposes	classroom	distance education	correspondence
☐ undergraduate courses in education	☐	☐	☐	☐	☐
☐ graduate courses in education	☐	☐	☐	☐	☐
☐ undergraduate university courses in an area other than education	☐	☐	☐	☐	☐
☐ graduate university courses in an area other than education	☐	☐	☐	☐	☐
☐ STF short courses	☐	☐	☐	☐	☐
☐ SIAST courses	☐	☐	☐	☐	☐
☐ regional college courses	☐	☐	☐	☐	☐
☐ other _____	☐	☐	☐	☐	☐

11. In which of the following types of **informal** learning activities have you participated during the past five years (or in the years since you left university if you graduated less than five years ago)? Check as many as apply.

	Purpose	
	personal learning or growth	career purposes
☐ reading	☐	☐
☐ watching TV or videos	☐	☐
☐ mentoring programs (e.g. supervising student teachers)	☐	☐
☐ peer coaching with a colleague(s)	☐	☐
☐ discussion or study groups with others with shared interests	☐	☐
☐ independent learning on the computer	☐	☐

12. (a) Have you participated in formal inservice sessions offered by a school division or other employer during the last five years (or in the years since you left university, if you graduated less than five years ago)?

☐ yes ☐ no

(b) If you have participated in inservice provided by an employer, to what extent has it met your career-related learning needs? Circle one number in the scale below.

unsatisfactory				highly satisfactory
1	2	3	4	5

Future Learning Needs

13. People participate in learning activities for a variety of reasons. How important is each of the following reasons to you?

	not important				very important
to become more skilled at my present job	1	2	3	4	5
to get a better job in the same area of work	1	2	3	4	5
to prepare for a career change	1	2	3	4	5
to make myself more marketable	1	2	3	4	5
to get a degree, certificate or other credential	1	2	3	4	5
because my employer requires it	1	2	3	4	5
for personal growth and interest	1	2	3	4	5
to become more skilled in a hobby or sport	1	2	3	4	5
other (please specify)	1	2	3	4	5

14. How important is each of the following types of learning activities to you in terms of your career and personal plans?

	not important				very important
undergraduate courses in education	1	2	3	4	5
graduate courses in education	1	2	3	4	5
undergraduate university courses in an area other than education	1	2	3	4	5
graduate university courses in an area other than education	1	2	3	4	5
STF short courses	1	2	3	4	5
SIAST courses	1	2	3	4	5
regional college courses	1	2	3	4	5
reading	1	2	3	4	5
watching TV or videos	1	2	3	4	5
mentoring programs (e.g. supervising student teachers)	1	2	3	4	5
peer coaching with a colleague(s)	1	2	3	4	5
discussion or study groups with others with shared interests	1	2	3	4	5
independent learning on the computer	1	2	3	4	5
other (please specify)	1	2	3	4	5

15. Sometimes employers provide incentives to encourage employees to further their education. How much of an incentive would each of the following be to you?

	no incentive				high incentive
paid tuition	1	2	3	4	5
time off with pay	1	2	3	4	5
time off without pay	1	2	3	4	5
salary increase upon successful completion of course	1	2	3	4	5
increased or expanded responsibility	1	2	3	4	5
recognition at a banquet or other function	1	2	3	4	5
other (please specify)	1	2	3	4	5

16. To what extent do each of the following factors limit your participation in ongoing learning activities?

	not at all				a great deal
lack of time	1	2	3	4	5
lack of money	1	2	3	4	5
family responsibilities	1	2	3	4	5
physical limitations (such as a hearing or visual disability)	1	2	3	4	5
limited access to resources such as books and videos	1	2	3	4	5
distance from an educational institution	1	2	3	4	5
other (please specify)	1	2	3	4	5

17. To which of the following do you have regular access? Check as many as apply.

- ☐ Internet work station
- ☐ multiple television channels through either cable TV or satellite dish
- ☐ an SCN receiving site
- ☐ VCR
- ☐ speaker phone
- ☐ frequent and reliable postal service
- ☐ other _____

18. How well does each of the following methods of delivering adult education programs meet your needs?

	not important				very important
Courses delivered face-to-face by an instructor that meet once a week	1	2	3	4	5
Courses delivered face-to-face by an instructor that meet one or two weekends a month	1	2	3	4	5
Summer short courses (1-5 days) in a city	1	2	3	4	5
Traditional summer school courses at the U of R or the U of S	1	2	3	4	5
Correspondence courses in which you work alone with printed lessons, textbooks and videos	1	2	3	4	5
Distance education in which students gather at specific times to view televised SCN presentations, participate in group activities and interact via technology with the instructor	1	2	3	4	5
Courses delivered on the Internet	1	2	3	4	5
other (please specify)	1	2	3	4	5

Please return this completed survey to

Education Graduates' Post-Degree Learning Needs Study
SIDRU
Faculty of Education
University of Regina
Regina, Saskatchewan
S4S 0A2

APPENDIX B

COUPON THAT APPEARED IN OCTOBER 11, 1996 ISSUE OF *SASKATCHEWAN TEACHERS' FEDERATION BULLETIN*

COUPON THAT APPEARED IN OCTOBER 11, 1996 ISSUE OF *SASKATCHEWAN TEACHERS' FEDERATION BULLETIN*

Do You Want to Keep On Learning?

The Saskatchewan Instructional Development and Research Unit (SIDRU) at the U of R is conducting a study to find out more about the ongoing learning needs of people with B.Ed. degrees. The study is sponsored by the U of R, the U of S and the STF. "Learning" includes personal learning, short courses, and inservice activities as well as university classes. If you are willing to participate in the study, please fill out the form below and send it by Oct. 25/96 to:

Education Graduates' Post-Degree Learning Needs Study
SIDRU, Faculty of Education, University of Regina
Regina, SK S4S 0A2

The results of the study will be used by boards of education, universities and other educational institutions to improve the quality of programs.

I would like to be part of the "Education Graduates' Post-Degree Learning Needs" study by participating in:

a written survey ☐ a phone interview ☐ a focus group ☐

Name: _____

Address: _____

_____

Phone: home _____ work _____

Fax #: _____ e-mail address: _____

APPENDIX C

DATA COLLECTION IN GRADUATE RESEARCH CLASSES AT UNIVERSITY OF REGINA AND UNIVERSITY OF SASKATCHEWAN

DATA COLLECTION IN GRADUATE RESEARCH CLASSES AT UNIVERSITY OF REGINA AND UNIVERSITY OF SASKATCHEWAN

INTERVIEWING SKILLS – CLASS OVERVIEW

Purpose of This Class

- to teach interviewing skills
- to collect data for the *Education Graduates' Post-Degree Learning Needs* Study

Why Use Interviews?

Interviewing Microskills

- open and closed questions
- encouragers
- probes
- paraphrasing
- keeping the interview on track

The Structure of an Interview

- introduction of yourself
- purpose of the interview
- demographic information
- content information
- closing the interview

Overview of the Education Graduates' Post-Degree Learning Needs Study

Interview Practice

- prepare an outline for an interview on the topic of post-degree learning needs (hand in at end of class)
- divide into groups of two to conduct interviews – each person gets a chance to interview and be interviewed

Class Conclusion

- prepare a written reflection regarding your experiences (hand in at end of class)
- hand in your taped interview at end of class

APPENDIX D

EDUCATION GRADUATES' POST-DEGREE LEARNING NEEDS TELEPHONE INTERVIEW SCRIPT

EDUCATION GRADUATES' POST-DEGREE LEARNING NEEDS TELEPHONE INTERVIEW SCRIPT

This is _____ calling. You agreed to participate in a telephone interview for SIDRU's study about education graduates' ongoing learning needs, and we scheduled this time for the interview. Is this still a good time?

For purposes of this study, we're using the term "learning" in quite a broad way. It includes formal learning like university courses and also informal learning like reading and watching educational TV programs. We're talking about learning that you do for personal interest as well as learning related to your job.

Everything you say during this interview is anonymous and confidential and you are free to end the interview at any time. I'll be making a few notes as we talk, but I'm not tape-recording the interview.

First, I'd like you to tell me a little bit about your work and yourself.

[Participant response.]

Thank you.

Now, could you talk a little about the role of ongoing learning in your life? How important is it to you and for what reasons?

[Participant response.]

There are dozens of formal educational programs out there and many informal learning opportunities. How do all of these rank in terms of meeting your learning needs?

[Participant response.]

Are there things that employers can do to encourage their staff to participate in learning activities?

[Participant response.]

Are there obstacles that prevent you from participating in learning activities?

[Participant response.]

Courses can be delivered in many different ways. You've probably experienced the traditional classroom lecture method, but now a lot of technological methods are available too. How do you learn best?

[Participant response.]

What delivery method is most convenient for you?

[Participant response.]